

showed no significant differences when compared in both groups at BT3. Intra-vaginal pressures (group 1: 41 ± 27 cmH₂O, group 2: 34 ± 22 cmH₂O, p:0.1) and intra-anal pressures (group 1: 43 ± 24 cmH₂O, group 2: 36 ± 20 cmH₂O, p:0.1) measured during pelvic floor contractions were also not significantly modified by reeducation.

Conclusions: patients with pelvic floor reeducation have a significant lower incidence of SUI after delivery, but the incidence of diminished sexual response and fecal incontinence is not modified after reeducation. BN position, mobility and elevation during PF contraction are not influenced by PF reeducation. The same is true for urodynamic parameters such as the stress profile in standing position. Surprisingly the incidence of weak pelvic floor clinically tested, and the intra-vaginal or intra-anal pressures during PF squeezing are the same in both groups when measured ten months after delivery.

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PREVALENCE AND RISK FACTORS OF URINARY INCONTINENCE AT 16 WEEKS OF GESTATION.

Aims of Study

The prevalence of urinary incontinence in women aged 18 to 44 years varies between 9% and 45% (1,2), it increases during pregnancy, especially after 20 weeks of gestation (3), and has been reported as high as 30-50%. The exact role of pregnancy and delivery in the development of urinary incontinence is, however, still controversial; furthermore the effect of obstetric factors and increasing parity is not clear.

This study aimed to evaluate the prevalence of urinary incontinence at 16 weeks of gestation and to identify possible maternal and obstetric risk factors.

Population and Methods

Cross-sectional study: All women attending routine antenatal care from 1993 to 1996 were asked to complete a questionnaire at 16 weeks of gestation; a total of 7795 (96%) women answered the questions about urinary incontinence. This cross-sectional study was used to describe the prevalence of urinary incontinence and to identify maternal risk factors.

Cohort study: A sub-group of 1781 pregnant women from the cross-sectional study with one previous delivery at our department between 1989 and the index pregnancy. From 1989, the obstetric records of all deliveries have been prospectively registered; thus we were able in this cohort to evaluate obstetric risk factors for developing urinary incontinence at 16 weeks of gestation.

Urinary incontinence was defined as involuntary loss of urine within the last year. For the analyses about maternal and obstetric risk factors we included only those with stress or mixed incontinence at least once a week. The questions about urinary incontinence had previously been calibrated through in-depth interviews; and repeatability also had been assessed. Bivariate associations between possible risk factors and urinary incontinence were tested by the χ^2 -test. Multiple logistic regression analyses were performed to identify independent maternal as well as obstetric risk factors.

Results

Prevalence: The prevalence of urinary incontinence within the preceding year was 8.9% among women at 16 weeks of gestation: nulliparous, 3.8%, para 1, 13.8%, para 2+, 16.2%. Stress or mixed incontinence occurred at least weekly in 3% of all the women. Maternal risk factors: After adjusting for age, parity, BMI, smoking, previous abortions, and previous lower abdominal or urological surgery in a logistic regression model, primiparous who had delivered vaginally had an increased risk of stress or mixed urinary incontinence than nulliparous (OR=5.7; 95% CI 3.9-8.3). Subsequent vaginal deliveries did not increase the risk significantly. Young age, BMI >30, and smoking were possible risk factors for developing urinary incontinence. Obstetric factors: Mediolateral episiotomy in combination with birth weight > 4000 g increased the risk of urinary incontinence (OR=3.5; 95% CI 1.2-10.2), and also newborn weight > 4000 g increased the risk (OR=1.8; 95% CI 1.0-3.5). A number of other intrapartum factors did not increase the risk of urinary incontinence.

Conclusions

The first vaginal delivery was a major risk factor for developing urinary incontinence; subsequent vaginal deliveries did not increase the risk significantly. Weight of the newborn > 4000 g alone and in combination with episiotomy also increased the risk.

References:

- 1: BMJ 1990;281:1243-1245.
- 2: J Epidemiol Community Health 1981;35:71-74.
- 3: Obstet Gynecol 1992;79:945-949.

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PREVALENCE AND RISK FACTORS OF ANAL INCONTINENCE AT 16 WEEKS OF GESTATION.

Aims of Study

The prevalence of anal incontinence has been little assessed in the younger age groups. In community-based surveys it varies between 2.2% and 5.7% (1,2), the prevalence known to health and social service agencies was 0.04% among women aged 15-64 years (3). Even though childbirth is considered to be the commonest cause of anal incontinence only few epidemiological studies have focused on the role of pregnancy and delivery. This study aimed to evaluate the prevalence of anal incontinence at 16 weeks of gestation and to identify possible maternal and obstetric risk factors.

Population and Methods

Cross-sectional study: All women attending routine antenatal care from 1993 to 1996 were asked to complete a questionnaire at 16 weeks of gestation; a total of 7557 (93%) women answered the questions about anal incontinence. This cross-sectional study was used to describe the prevalence of anal incontinence and to identify maternal risk factors. **Cohort study:** A sub-group of 1726 pregnant women from the cross-sectional study with one previous delivery at our department between 1989 and the index pregnancy. From 1989, the obstetric records of all deliveries have been prospectively registered; thus we were able in this cohort to evaluate obstetric risk factors for developing anal incontinence at 16 weeks of gestation.

Anal incontinence was defined as involuntary loss of flatus, liquid or solid stools within the last year. The questions about anal incontinence had previously been calibrated through in-depth interviews; and repeatability also had been assessed. We restricted the analyses about maternal and obstetric risk factors to women with isolated flatus incontinence at least once a week. Bivariate associations between possible risk factors and anal incontinence were tested by the χ^2 -test. Multiple logistic regression analyses were performed to identify independent maternal as well as obstetric risk factors.

Results

Prevalence: The prevalence of anal incontinence within the preceding year was 8.6%. Isolated flatus incontinence was reported in 4.2% at least once a week; isolated incontinence of liquid and solid stools in 0.2% and 0.1%, respectively. **Maternal factors:** After adjusting for age, parity, BMI, smoking, previous abortions, and previous lower abdominal or urological surgery in a logistic regression model we found the risk of flatus incontinence at least once a week was increased with age > 35 years (OR=1.6; 95% CI 1.1-2.4) and with previous lower abdominal or urological surgery (OR=1.5; 95% CI 1.1-2.1). Increasing parity did not increase the risk. **Obstetric factors:** The risk of flatus incontinence was increased after anal sphincter tear (OR=6.2; 95% CI 1.1-35.8) and birth weight > 4000 g (OR=2.3; 95% CI 1.1-4.7). Mediolateral episiotomy was insignificantly associated (OR=1.7, 95% CI 0.8-3.7); spontaneous perineal tear > 3 cm and a number of other intrapartum factors were not associated.

Conclusions

Age > 35 and previous lower abdominal or urological surgery increased the risk of flatus incontinence by contrast with increasing parity. However, analysing obstetric variables separately, birth weight > 4000 g and anal sphincter tear were significant risk factors for flatus incontinence. Episiotomy may be a possible risk factor, by contrast with spontaneous perineal lacerations > 3 cm. Our data may suggest that childbirth has less influence on the prevalence of anal incontinence than previously believed.

References:

- 1: JAMA 1995;274:559-561.
- 2: Dig Dis Sci 1993;38:1569-1580.
- 3: Community Med 1984;6:216-220.

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PREGNANCY AND NOT DELIVERY ASSOCIATED WITH POSTPARTUM INCONTINENCE IN PRIMIGRAVID WOMEN

AIMS OF STUDY Incontinence is common, its prevalence increases with age and with parity (1). Vaginal delivery is thought to be a major factor in the development of genuine stress incontinence (2). There have been very few prospective studies through pregnancy and postpartum examining the relationship between pregnancy, delivery and stress incontinence. Previous studies have demonstrated that the results of urodynamic investigations correlate poorly with urinary tract symptomatology in pregnancy and the postpartum period (3). This study was designed to examine urinary symptoms prospectively, in particular frequency, urgency and incontinence, through pregnancy and for three months postpartum